## RTE. 66 BYWAY KIOSK SHELTER

# MANUFACTURE'S SPECIFICATION

#### PRE-FABRICATED SITE SHELTERS

PART 1 GENERAL

#### 1.1 SUMMARY

A. Design, fabrication, finishing, and delivery of pre-engineered, factory-fabricated site shelters.

## **1.2 SYSTEM DESCRIPTION**

- A. Design shall meet or exceed applicable building code.
- B. Pre-fabricated package shall include structural steel framing members, pre-cut roof panels, trim, and fasteners.
- C. All bolts shall be hidden, concealed inside the steel tubes.
- D. Field labor required to install the pre-fabricated parts. Onsite welding shall not be required.

## **1.3 REFERENCES**

- A. American Society of Testing Material (ASTM)
- 1. ASTM A36 Standard Specification for Carbon Structural Steel
- 2. ASTM A307 Standard Specification for Carbon Steel Bolts and Studs
- 3. ASTM A325 Standard Specification for Structural Bolts, Steel, Heat Treated
- 4. ASTM A500 Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
- 5. ASTM A563 Standard Specification for Carbons and Alloy Steel Nuts
- B. American Institute of Steel Construction (AISC)
- C. American Welding Society (AWS)

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D. Steel Structures Painting Council (SSPC); SSPC-SP10 - Near-White Blast Cleaning

- E. Leadership in Energy and Environmental Design (LEED)
- F. OSHA Steel Erection Standard 29 CFR 1926.750 Part R: Compliance requires a minimum of four anchor bolts per column.

#### 1.4 QUALITY ASSURANCE

- A. Designer Qualifications: Design under direct supervision of a Professional Engineer (KDOT) experienced in design of this type of work and licensed in the State where the Project is located.
- B. Manufacturer Qualifications: Company experienced in design and manufacture of shelters of the type specified, and having the following:
- 1. Minimum five years of experience in design and fabrication of pre-fabricated steel shelters.
- 2. Three references of similar shelters completed within the past year.
- 3. Fabricator membership in American Institute of Steel Construction (AISC), requiring quality control documentation and procedures. Provide current AISC shop certification upon request.
- 4. All welding to be performed to AWS standards by AWS certified welders. Provide welding certification upon request.
- C. Perform the work in accordance with applicable federal, State, and local building and safety codes and regulations.

#### 1.5 SUBMITTALS

- A. Minimum 3 sets of shop drawings, showing all details of construction, including foundation sizes, reinforcement, and locations.
- 1. Provide the licensed professional engineer's state stamp or seal on the shop drawings.
- 2. Provide the licensed professional engineer's state stamp or seal on the structural calculations.
- B. Selection Samples: For each finish product specified, color charts representing manufacturer's full range of available colors. Samples and submittals must be Approved by KDOT's Environmental Services Section. Contact Scott Shields 785-296-4149. Email: <a href="mailto:scottsh@ksdot.org">scottsh@ksdot.org</a>
- C. Warranty
- 1. Provide minimum five year frame warranty against manufacturer defects.
- 2. Provide roofing manufacturer's limited warranty.
- 3. Must withstand 100 mile and hour wind event

## 1.6 DELIVERY, STORAGE, AND PROTECTION

A. Package factory-finished steel components in foam, cardboard, and stretch wrap to protect the finish during transit.

B. Shipped knocked down for minimal shipping charges.

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C. Deliver products to project site in manufacturer's protective packaging.

D. Follow shelter manufacturer's recommendations and instructions, including those printed on the shop drawings. To minimize damage during unloading, use only padded forks or non-marring slings.

E. Store products in manufacturer's unopened packaging well off the ground and covered out of weather until ready for installation.

#### **PART 2 PRODUCTS**

#### 2.1 GENERAL

### Size and dimensions

1. Shape: 12' Hexagonal

2. Dimensions: reference preliminary drawings

3. Roof Style: hip

4. Roof Pitch: 3: 12 or 2:12

5. Eave Height: minimum 6'-10"

6. Quantity: 1

Substitutions: Products other than specified must request and receive approval in writing by addendum at least ten (10) days prior to the bid date. See Instructions to Bidders for further instructions.

## **2.2 STEEL STRUCTURAL COMPONENTS**

A. Structural framing: fabricated for field assembly using bolted connections with no welding required or permitted; cold-formed shapes prohibited.

1. Columns & Beams: ASTM A500 Grade B structural steel tube. The following shapes are prohibited: Ibeams, wide-flange beams, C-channels, Z-shapes.

2. Plates: ASTM A36.

3. Compression Ring: steel plate, ASTM A36.

- 4. Fasteners
- a. Bolts: ASTM A325 high strength bolts.
- b. Nuts: ASTM A563 high strength nuts.
- 5. Column Anchors: ASTM A307, attached to top of foundation, recessed below slab on grade.
- 6. Cap plates: factory bent and field installed with hidden fasteners on hip and ridge beams not normal to roof so that metal roof deck does not bear structurally on beam corner only
- 7. Finish: Powder coat Light bronze color for roof and dark bronze for the posts
- a. Shot or sand blasted to near white condition in accordance with SSPC-SP10, removing all oil residue, mil scale, weld spatter, and slag
- b. Three stage phosphate wash
- c. Sealed with rust protectant
- d. Epoxy powder coat gray primer
- e. Double topcoat TGIC polyester powder coat; color to be selected from manufacturer's standard color chart by Owner. (light bronze for the roof and dark bronze for the posts/frame)
- f. Primer plus finish coats shall be 3-5 mils thick
- g. All materials inspected to meet 100% coating, proper cure, film thickness, and impact resistance
- h. Wet-coat alternatives shall not be acceptable.
- B. Roof System: Galvalume® structural metal roof panels with exposed fasteners.

## 8. Panel Profiles:

Panel Width and Height: 4'-0" w x 3'-0 h

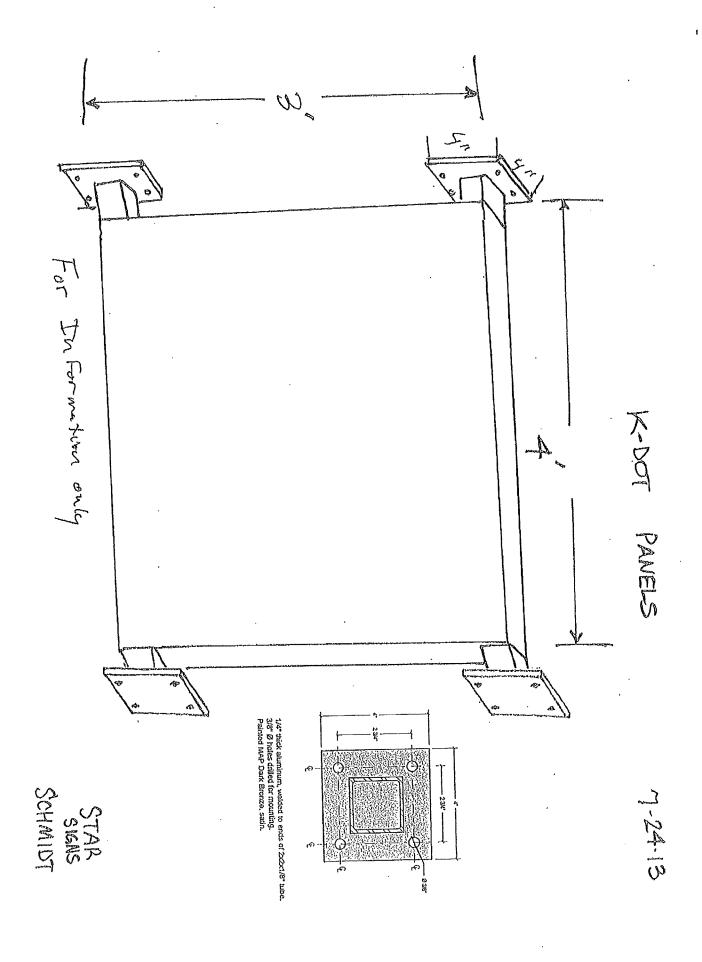
Panel Length: Precut to the length from the eave to the ridge; angles factory precut.

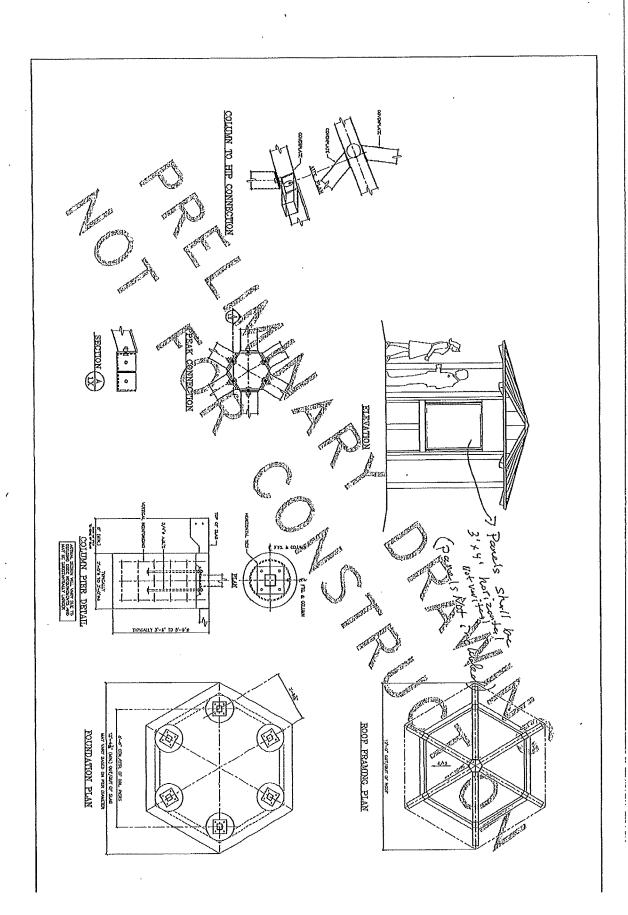
Trim: Provide matching roof trim and fasteners.

Finish: Factory pre-finished with Kynar 500® paint system; color to be selected by Owner from standard color chart.

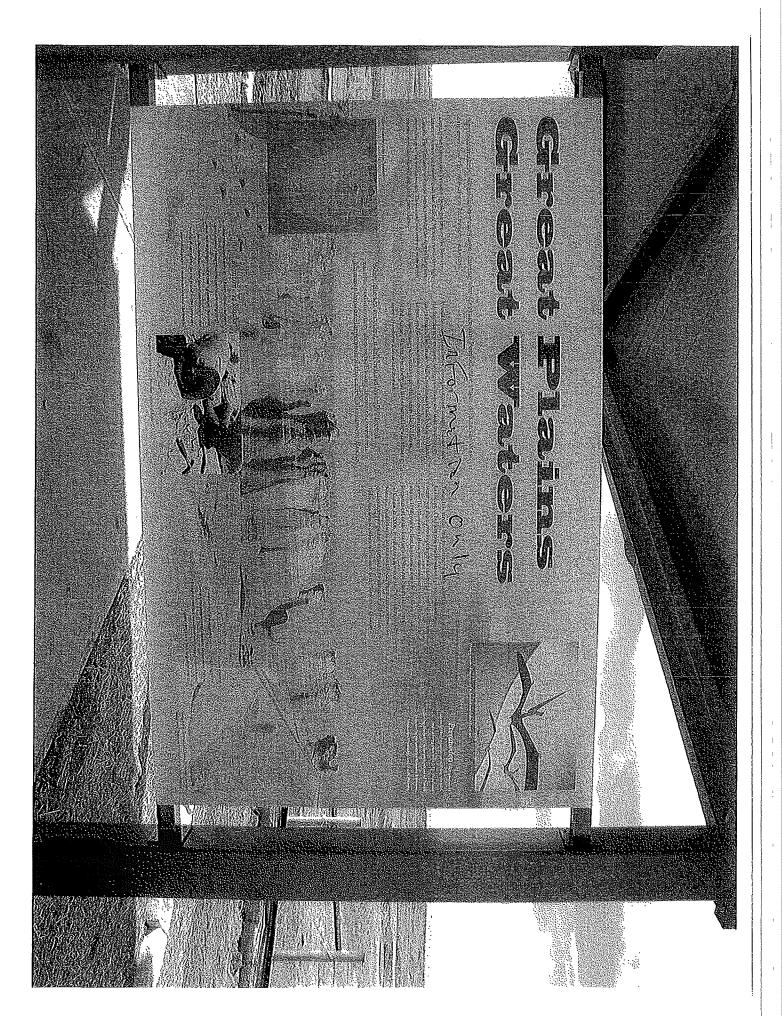
Message Board Cases: (Not included in this bid)

Touch-up, repair, or replace damaged finishes before Substantial Completion. Touch up paint provided by manufacturer.





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121 example - Panels will be horizontal and Not vertical.

to: Ja Ann 1-10-14
Fram Scott Shirely